Claims

1. A peptide consisting of at least one sub-fragment of the human S-100β polypeptide comprising from 6 to 38 amino acids, where said sub-fragments show at least 90% homology with the sequence

SELEKAMVALIDVFHQYSGREGDKHKLKKSELKELINN (SEQ. ID. NO. 2)

and/or the amino acid sequence

TACHEFFEHE (SEQ. ID. NO. 3)

and retain essentially the same immunological properties.

2. A peptide according to claim 1 **characterized** in that the sub-fragments are derived from the amino acid sequence:

SELEKAMVALIDVFHQYSGREGDKHKLKKSELKELINN (SEQ. ID. NO. 2).

3. A peptide according to claim 2, which is

REGDKHKLKK (SEQ. ID. NO. 5);
DKHKLKKSEL (SEQ. ID. NO. 7); or
KLKKSELKEL (SEQ. ID. NO. 8).

4. A peptide according to claim 1, **characterized** in that the sub-fragments are derived from the amino acid sequence:

TACHEFFEHE (SEQ. ID. NO. 3).

5. A peptide according to claim 4, which is

EFFEHE (SEQ. ID. NO. 6).

6. A peptide according to claim 1, **characterized** in that it consists of at least one sub-fragment derived from the sequence according to SEQ. ID. NO. 2 and at least one sub-fragment derived from the sequence according to SEQ. ID. NO. 3.

7. A monoclonal antibody or a fragment of such an antibody specifically binding a peptide according to anyone of the preceeding claims.

8. A monoclonal antibody or an antibody fragment according to claim 7, specifically binding a peptide according to claim 2.

9. A monoclonal antibody or an antibody fragment according to claim 7, specifically binding a peptide according to claim 4.

10. Use of a monoclonal antibody or an antibody fragment according to anyone of claims 7-9 in immunological assay methods.

11. Use of a peptide according to anyone of claims 1-6 for eliciting antibodies.

12. Use of a peptide according to anyone of claims 1 - 6 in immunological assay methods.

13. A method of determining the presence of human S-100β polypeptide in a sample comprising the steps of:

letting the sample to be analyzed immunologically react with a first monoclonal antibody according to claim 8, said first antibody being coupled to a carrier;

letting the sample immunologically react with a second monoclonal antibody according to claim 9, said second monoclonal antibody being provided with detection means;

Washing; and

detecting the amount of S-100β polypeptide in the sample.

14. A method according to claim 13 where the detection means is a group having the ability of emitting luminescence.

15. A method according to claim 14, where the carrier is a magnetic particle.

16. A kit for determining the presence of human S-100β polypeptide in a sample, comprising a peptide according to anyone of claims 1 - 6 and/or an antibody according to anyone of claims 7 - 9.

17. A kit according to claim 16 comprising a first monoclonal antibody according to claim 8 and a second monoclonal antibody according to claim 9, said first monoclonal antibody being coupled to a carrier and said second monoclonal antibody being provided with a detection means.

18. A kit according to claim 17, wherein said carrier is a magnetic particle and said detection means is a group having the ability of emitting luminescence, such as luminol.

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